Lat 40.21799 Lon -122.27612

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Reply To: 3410

Date: January 7, 1998

Subject: Douglas-fir Tussock Moth Pheromone Detection Survey 1997 Report (NE98-1)

To: Forest Supervisors: Eldorado, Inyo, Lassen, Plumas, Modoc, Sierra, Stanislaus, Sequoia and Tahoe National Forests and the Lake Tahoe Basin Management Unit

Enclosed are the results of the 1997 cooperative Douglas-fir tussock moth (DFTM) pheromone detection survey. Average trap catches for 1997 showed decreases for several plots compared to 1996 catches (Table 1.). Data were collected for 142 plots (5 traps/plot) during 1997. Of these, 125 plots (88%) had fewer than an average of 25 males per trap, the remaining plots averaged 25 or more moths per trap. For most plots this is a downward trend from average counts recorded in 1995 and 1996. Plots which averaged >25 moths per trap for 1997 were located on the following Ranger Districts: Calaveras, on the Stanislaus NF, Pacific and Placerville on the Eldorado NF, Downieville and Nevada City on the Tahoe NF, Mt. Hough, Plumas NF and Almanor on the Lassen NF. In addition to these plots monitored on National Forest lands there was 1 plot monitored by the California Department of Forestry that averaged >25 moths per trap. Noticeable defoliation was not detected in any of the plots.

Increases and declines in trap counts are very common with DFTM populations. Declines can occur prior to reaching outbreak levels which seems to be the case for most plots when comparing 1996 and 1997. Although significant activity by DFTM is not anticipated within areas monitored by the plot system during 1998, a potential outbreak, to be covered under separate reports, has been detected on the Sequoia NF and the Sequoia/ Kings Canyon NP's. It is prudent that field going personnel continue to monitor for evidence of feeding and defoliation on white fir throughout the susceptible host type this summer and fall. In addition, Forest Pest Management will continue monitoring other life stages and adult males in established monitoring sites and in the areas where DFTM activity exceeded an average of 25 males/trap. Ranger Districts may still want to consider establishing additional pheromone plots in areas of susceptible host type.

Sufficient trapping materials have been ordered for the detection trapping plots for 1998. They will be distributed to cooperators in June or July of this year. Please direct any questions and/or observations of feeding or defoliation to Sheri Smith (530-252-6667) or John Wenz at (209-532-3671).

Updates on population monitoring will be distributed to land managers as needed.

Sheri Lee Smith
Entomologist, Forest Pest Management
NE CA Shared Service Area

Enclosure

cc: Jesse Rios, CDF&FP, Sacramento
Don Owen, CDF&FP, Redding
Dan Marlatt, BLM, Susanville
FPM- Regional Office
FPM - Shasta-Trinity NF
FPM - Stanislaus NF

Table 1.

NUMBER OF DOUGLAS-FIR TUSSOCK MOTH PHEROMONE DETECTION SURVEY PLOTS BY TRAP CATCH 1979-1997

Year	Total Number Plots	NUMBER OF PLOTS WITH AN AVERAGE MOTH CATCH PER TRAP OF:													
		0<10	10<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	60<65	65<70	70<75	75+
1979	102	97	2	1	1	0	1	0	0	0	0	0	0	0	0
	100%	95%	2%	1%	1%		1%								
1980	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0
	100%	100%													
1981	93	78	10	4	1	0	0	0	0	0	0	0	0	0	0
	100%	84%	10%	4%	2%										
1982	95	93	1	0	1	0	0	0	0	0	0	0	0	0	0
	100%	98%	1%		1%										
1983	98	87	6	1	1	3	0	0	0	0	0	0	0	0	0
	100%	89%	6%	1%	1%	3%									
1984	111	51	18	11	5	7	8	4	3	4	0	0	0	0	0
	100%	46%	16%	10%	4%	6%	7%	4%	3%	4%					
1985	105	58	14	4	7	6	5	1	2	4	1	2	0	1	0
	100%	55%	13%	4%	6%	6%	5%	1%	2%	4%	1%	2%		1%	
1986	107	64	16	4	8	6	1	3	0	1	0	1	1	1	1
	100%	60%	15%	3%	7%	6%	1%	3%		1%		1%	1%	1%	1%
1987	108	80	15	4	2	1	1	3	0	1	0	0	1	0	0
	100%	74%	14%	4%	2%	1%	1%	2%		1%			1%		
1988	124	106	9	3	3	0	2	1	0	0	0	0	0	0	0
	100%	86%	7%	2%	2%		2%	1%							
1989	130	129	1	0	0	0	0	0	0	0	0	0	0	0	0
	100%	99%	1%												
1990	138	135	1	0	1	1	0	0	0	0	0	0	0	0	0
	100%	97%	1%		1%	1%									
1991	143	135	4	1	0	0	2	1	0	0	0	0	0	0	0
	100%	94%	3%	1%			1%	1%							
1992	164	156	3	0	2	1	0	0	0	0	1	0	1	0	0
	100%	95%	1%		1%	1%					1%		1%		
1993	143	135	8	0	0	0	0	0	0	0	0	0	0	0	0
	100%	94%	6%												
1994	151	139	11	1	0	0	0	0	0	0	0	0	0	0	0
	100%	92%	7%	1%											
1995	158	77	35	13	16	7	7	3	0	0	0	0	0	0	0
	100%	49%	22%	8%	10%	4.5%	4.5%	2%							
1996	149	33	26	16	8	7	12	9	5	8	6	8	5	1	5
	100%	22%	17%	11%	6%	4%	8%	6%	3%	6%	4%	6%	3%	1%	3%
1997	142	88	27	10	9	4	3			1					
	100%	62%	19%	7%	6%	3%	2%			<1%					